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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,104	02/21/2002	Kaoru Koike	09792909-5344	1692
26263	7590	06/30/2005	EXAMINER	
SONNENSCHN NATH & ROSENTHAL LLP			ERDEM, FAZLI	
P.O. BOX 061080			ART UNIT	
WACKER DRIVE STATION, SEARS TOWER			PAPER NUMBER	
CHICAGO, IL 60606-1080			2826	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/080,104	Applicant(s) KOIKE ET AL.	
	Examiner Fazli Erdem	Art Unit 2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-37, 51-82 and 84-86 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-37, 51-57, 62-66, 68-82 and 84-86 is/are allowed.
- 6) ☒ Claim(s) 58-61 and 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 12-37, 51-57, 62-66, 68-82 and 84-86 allowed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 58-61 rejected under 35 U.S.C. 103(a) as being unpatentable over Yahiro et al. (6,204,509) in view of Mitome et al. (5,695,897).

Regarding Claims 58-61, Yahiro et al. disclose a projection-microlithography apparatus, masks, and related method incorporating reticle distortion measurement and correction where in figs. 1(a) – 1(f), it is disclosed a plurality of pattern formation regions 50 in which mask circuit patterns are to be formed, and a supporting region 51 in which an y mask circuit is not to be formed where the supporting region being provided for holding plurality of pattern formation regions while separating plurality of pattern formation regions from each other where the supporting region has first alignment marks 53 used at the time of exposure of a mask made from the mask making member for forming the mask circuit pattern and second alignment patterns 301 used at the time of exposure of a substrate to be exposed for forming circuit patterns. Furthermore, Yahiro et al. disclose that first and second alignment marks are formed on an electron scatterer formed on a membrane by selectively removing electron scatterer and first and second

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alignment marks formed on a mask board. Yahiro et al. fail to disclose that first and second alignment marks formed one at a time. However, Mitome et al. disclose an alignment method and semiconductor exposure method where in claims 1 and 2, the required one at a time alignment mark method is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required one at a time alignment mark method in Yahiro et al. as taught by Mitome et al. in order to have a mask making member with increased reliability.

4. Claims 67 rejected under 35 U.S.C. 103(a) as being unpatentable over Yahiro et al. (6,204,509) in view of Mitome et al. (5,695,897) further in view of Saitoh et al. (5,319,444)

Regarding Claims 58-61, Yahiro et al. disclose a projection-microlithography apparatus, masks, and related method incorporating reticle distortion measurement and correction where in figs. 1(a) – 1(f), it is disclosed a plurality of pattern formation regions 50 in which mask circuit patterns are to be formed, and a supporting region 51 in which an y mask circuit is not to be formed where the supporting region being provided for holding plurality of pattern formation regions while separating plurality of pattern formation regions from each other where the supporting region has first alignment marks 53 used at the time of exposure of a mask made from the mask making member for forming the mask circuit pattern and second alignment patterns 301 used at the time of exposure of a substrate to be exposed for forming circuit patterns. Furthermore, Yahiro et al. disclose that first and second alignment marks are formed on an electron scatterer

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formed on a membrane by selectively removing electron scatterer and first and second alignment marks formed on a mask board. Yahiro et al. fail to disclose that first and second alignment marks formed one at a time and the proximity type system. However, Mitome et al. disclose an alignment method and semiconductor exposure method where in claims 1 and 2, the required one at a time alignment mark method is disclosed. Furthermore, Saitoh et al. disclose a position detecting method and apparatus where in claims 42, 47 and 113, the required proximity type system is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required one at a time alignment mark method and the proximity type system in Yahiro et al. as taught by Mitome et al. and Saitoh et al. respectively, in order to have a mask making member with increased reliability.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (571) 272-1914. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FE

June 24, 2005



NATHAN J. FLYNN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800